

Sanskar Sehgal

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EDUCATION

State University of New York at Stony Brook,

Aug 2022 – May 2024 | Stony Brook, NY

Master of Science in Computer Science with Thesis (GPA 3.8/4)

Selected Coursework: Network Security, Operating Systems, Big Data Analytics, Machine Learning

Manipal Institute of Technology,

Jul 2018 – Jul 2022 | Manipal, India

Bachelor of Technology in Computer Science (CGPA: 9/10)

Selected Coursework: Algorithms, Object-Oriented Programming, Database Systems, Parallel Computing, Deep Learning

SKILLS

Languages: C, C++, Python, HTML/CSS, JavaScript, TypeScript

Database and Frameworks: MySQL, Oracle, Hadoop, PySpark, Django, Qt, Flask, React, VS Code, Git, Docker

Machine Learning: PyTorch, Tensorflow, Scikit-Learn, Keras, OpenCV, NumPy, SciPy, Selenium, Beautiful Soup

PROFESSIONAL EXPERIENCE

Udaan, Software Development Intern (C++, Python, Flask, Docker, GCP)

Jan 2022 – Jun 2022 | Mumbai, India

- Designed **REST APIs** to enable authentication, OCR, translation, and file push to GitHub. API integration automated workflow, **saving 400+ manual work hours**.
- Configured and deployed the Flask backend on Google Cloud. **Led a team of 6 interns** to troubleshoot bugs, resulting in a **40%** increase in customer satisfaction ratings.
- Implemented **multi-threaded routines** in C++ (Qt), resulting in a smoother user experience and increasing user engagement.

Centre for Artificial Intelligence and Robotics, Government of India,

Jun 2021 – Dec 2021 | Bangalore, India

Machine Learning Research Intern (Python, Pytorch, Git)

- Developed **intelligent information retrieval systems** using Graph Neural Networks and Reinforcement Learning, achieving up to **37%** improvement over current baselines.
- Devised a **search engine** that adapts to user preferences using a Markov Decision Process that models user feedback.
- Created a **testbed** to simulate real-world information retrieval systems, facilitating model performance analysis.

Tata Asset Management, Data Engineer Intern (Python, Excel, HubSpot)

May 2021 – Jul 2021 | Mumbai, India

- Played a key role in Tata's expansion into new markets by contributing to developing a digital marketing campaign. Achieved an Asset Under Management increase of **\$400 Million**.
- Developed **customer segmentation and clustering** models to effectively target potential customers, resulting in an **8%** increase in conversion rates.

PROJECTS

Covid Substance Abuse and Resource Prediction,

Jan 2023 – May 2023

(Python, PySpark, PyTorch, Git) [🔗](#)

- Worked on an end-to-end data-driven project by scrapping Reddit data to study the increase in substance abuse risk during covid.
- Employed time series analysis to forecast hospital bed and staffing deficits with a one-week lead time for pandemic preparedness.

Detection of Location Spoofing in Vehicles, (Python, PyTorch, Git)

Jan 2022 – Dec 2022

- Strengthened GPS security by preventing location spoofing in vehicles equipped with Software Defined Radios.
- Built a multiclass classifier using sensor data to predict the lane and speed of the spoofing vehicle with an accuracy of 90%.

Py Sanitize, (Python) [🔗](#)

Aug 2022 – Dec 2022

- Created a robust and versatile library for Pickle serialization in Python that implements an allowlist-based sanitizer to prevent code injection attacks.

AWARDS AND ACHIEVEMENTS

- Ranked within the top 10% of my graduating cohort at the Manipal Institute of Technology.
- Awarded Best volunteer by 180DC, an NGO that advises and assists start-ups in pre-seed funding stages.